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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,131	02/06/2007	Alexander Schmidt-Forst	18227 (27839-1549)	9398
45736 7590 03/15/2011 Christopher M. Goff (27839) ARMSTRONG TEASDALE LLP 7700 Forsyth Boulevard Suite 1800 St. Louis, MO 63105				
EXAMINER				
COLE, ELIZABETH M				
ART UNIT		PAPER NUMBER		
1798				
NOTIFICATION DATE		DELIVERY MODE		
03/15/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USpatents@armstrongteasdale.com

**Office Action Summary****Application No.**

10/561,131

**Applicant(s)**

SCHMIDT-FORST ET AL.

**Examiner**

Elizabeth M. Cole

**Art Unit**

1798

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26, 29-33, 35-37, 39 and 41-45 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-26, 29-33, 35-37, 39, 41-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No.(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/1/10 has been entered.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitfield et al, U.S. Patent No. 4,432,834 in view of Agyapong et al, U.S. Patent No. 6,554,814. Whitfield discloses applying an imidazolinium methosulfate in amounts of greater than 0.035 percent by weight based on the fiber weight to cellulosic pulp fibers, (which correspond to the claimed short fibers). The fibers can be formed into tissue products and toweling which corresponds to the claimed fibrous nonwoven. See col. 1, lines 7-13; col. 2, lines 9-17; col. 2, lines 44 - col. 3, line 7; and examples. Whitfield differs from the claimed invention because it does not disclose employing multi lobed rayon fibers. However, Agyapong teaches at col. 7, lines 15-40, that rayon fibers and trilobal rayon fibers can be used instead of or in mixture with short cotton fibers to form absorbent articles. Therefore, it would have been obvious to have

employed other known types of absorbent fibers such as multi-lobed rayon fibers as the pulp in the invention of Whitefield, in view of the teaching of Agyapong that multi lobed rayon was an alternative, known absorbent pulp fiber for use in forming absorbent articles. One of ordinary skill in the art would have recognized that the multilobed rayon fibers of Agyapong could have been predictably substituted for the cellulosic pulp fibers of Whitefield in order to form an absorbent product.

3. Claims 20-26, 29-33, 35-39, 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott, Jr. et al, U.S. Patent Application publication 2002/0032421 in view of Whitfield et al, U.S. Patent NO. 4,432,834, Agyapong et al, U.S. Patent No. 6,554,814 and Shah, U.S. Patent No. 4,575,376. Scott, Jr. discloses an absorbent airlaid nonwoven fabric comprising short cellulosic fibers such as cotton linters. See paragraphs 0014 and 0021, and examples. The airlaid fabric further comprises binder fibers, which are preferably bicomponent binder fibers having a polyester core and a polyolefin sheath. See paragraph 0025. The short fibers are present in an amount of over 70% and preferably in ratios of 80/20 to 99/1 cotton to thermoplastic fibers. See paragraph 0033. The airlaid may further comprise additional components such as superabsorbent materials. See paragraph 0029. Scott defines short fibers as having a length of 0.5-12 mm, which encompasses the claimed short fiber lengths. See paragraph 0014. Scott, Jr. et al differs from the claimed invention because it does not disclose employing short rayon, (viscose), fibers and does not teach applying a finish to the short fibers. With regard to the finish, Whitfield teaches applying an imidazolinium methosulfate to pulp fibers in order to improve the absorbency of the fibers as set forth

above. Therefore, it would have been obvious to have applied the finish of Whitfield to the fibers of Scott, Jr, in order to further enhance their absorbency. With regard to the use of rayon fibers, Shah teaches that both cotton and rayon fibers can be used for forming absorbent materials which can also be treated with a finish to improve absorbency. See col. 3, lines 35-55. Therefore, it would have been obvious to have employed both rayon and cotton as taught by Shah as the fibers of Scott, in view of their art recognized suitability for this intended purpose.

4. Scott differs from the claimed invention because it does not specifically disclose employing rayon fibers or multi-limbed rayon fibers to form the airlaid fabric. However, Agyapong teaches at col. 7, lines 15-40, that rayon fibers and trilobal rayon fibers can be used instead of or in mixture with short cotton fibers to form absorbent articles. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed rayon and/or trilobal rayon fibers in the invention of Scott in addition to or instead of the short cotton fibers, in view of their art recognized suitability for this purpose. With regard to the particularly claimed fiber dtex for the binder fibers and cellulosic fibers, it would have been obvious to have selected fiber dtex in order to form a fabric having the desired absorbency and strength, (see paragraph 0024 of Scott which relates fiber length to tenacity of the nonwoven). Further, since Scott teaches that short fibers may be used without excessive dust off problems due to the use of the binder fibers, the person of ordinary skill in the art would have been able to employ the less expensive shorter rayon fibers in the invention of Scott, (see paragraph 0015 of Scott). With regard to the claimed absorbency,

Agyapong teaches that absorbencies of from less than 6g/g to up to about 15 g/g are known to be useful in the art of absorbency catamenial devices. See paragraph 8, line 58 – col. 9, line 8. Therefore, it would have been obvious to have controlled the absorbency of the product of Scott through the selection of the various components, finishes and additives, which produced an absorbent product having the desired absorbencies.

5. Applicant's arguments filed 11/1/10 have been fully considered but they are not persuasive. Applicant's arguments with regard to the 102(b) rejection over Whitfield and the 103 rejections over Scott in view of Shah and Whitfield are moot in view of the new grounds of rejection.

6. With regard to Agyapong, Applicant argues that there would be no reason to combine Agyapong with Scott or Whitfield because Agyapong is drawn to a different problem than are Scott and Whitfield. However, Agyapong is relied on for the teaching that multi-lobed rayon fibers were recognized in the art as useful and equivalent to other known cellulosic fibers such as cotton fibers in forming absorbent personal care articles. This teaching would have been pertinent to Whitfield, since Whitfield is also concerned with forming absorbent person care articles.

7. With regard to Scott, both Agyapong and Scott are also drawn to forming absorbent personal care articles, in particular tampons. Agyapong is relied on for the teaching of other suitable, known and equivalent types of rayon fibers which can be used in tampons. The person of ordinary skill in the art would have recognized that Agyapong teaches that round rayon fibers and multi-lobed rayon fibers were both useful

in forming absorbent articles such as tampons, in addition to or instead of cotton and other types of cellulosic fibers and that such rayon fibers could have been predictably employed in the structure of Scott. Therefore, the rejection is maintained.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Angela Ortiz may be reached at (571) 272-1206.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1798